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RESEARCH NEWS

NIGHT LIGHTS DON'T LEAD TO NEARSIGHTEDNESS, STUDY SUGGESTS

Columbus, Ohio - A new study published in the journal *Nature* suggests that leaving a light on in a sleeping infant's room won't increase the child's chance of becoming nearsighted.

The study contradicts previous research, published in the May 13, 1999, issue of *Nature*, that found babies younger than 2 years old who slept with a light on were at increased risk of developing myopia - nearsightedness - later in childhood.

In the current study of 1,220 children, Ohio State University researchers found no association between nighttime lighting and the development of nearsightedness. It didn't matter if the child had slept in a dark room, with a night light on or in a fully lit room.
What the researchers did find, however, was a strong link between nearsighted parents and nearsighted children.

"We found no link between nighttime lighting and the development of childhood myopia," said Karla Zadnik, a co-author of the study and an associate professor in the College of Optometry at Ohio State. "In fact, the proportion of myopic children across nursery lighting conditions was remarkably uniform." A second, independent report in this issue also finds no link between nighttime lighting and myopia.

The study found that of 417 children who had slept without a light on, 20 percent became myopic; of 758 children who had slept with a nightlight on, 17 percent became myopic; and of 45 children who had slept in a fully-lit room, 22 percent became myopic.

She and her colleagues surveyed parents for the study, asking what kind of nighttime lighting had been used in their children's rooms before age 2. Eyes grow rapidly during the first two years of life, but myopia usually doesn't develop until much later. The average age of the children surveyed in this study was 10 years.

The previous study, conducted by researchers at the University of Pennsylvania, found that "ambient light exposure during sleep at night in the first two years" of a child's life greatly increase that child's chances of developing myopia. This earlier study showed that nearly half of the children who had slept in a fully lit room had become myopic later in childhood.

But the same study did not take into consideration whether or not parents were nearsighted, according to Zadnik. Her study took into account parental myopia. The researchers noticed that nearsighted parents were more likely to use a nightlight in their child's room. "We think this may be due to the parents' own poor eyesight," Zadnik said. Also, Zadnik said her study found that genetics plays a significant role in causing myopia.

The children in the earlier study were also not representative of most children with myopia. The children in their study had a higher proportion of myopia than expected for their age. These children came to a specialty clinic, whereas the children in the new study were seen by various optometrists in schools across the U.S.

"Across nursery lighting conditions, the percent of children in our study who eventually developed myopia was very similar," Zadnik said. "Parents should be reassured by these results and not concern themselves with this unfounded risk."

Zadnik conducted this study with Donald Mutti, an associate professor, and Lisa Jones, an adjunct assistant professor, both in the College of Optometry at Ohio State; Brett Irvin, an optometry student at Ohio State; Robert Kleinstein, of the University of Alabama School of Optometry in Birmingham; Ruth Manny, of the University of Houston College of Optometry; and Julin Shin, of the Southern California College of Optometry.

This research was part of an ongoing study called the Collaborative Longitudinal Evaluation of Ethnicity and Refractive Error (CLEERE) study. CLEERE studies children in four locations in the United States. The study is funded by the National Eye Institute, a division of the National Institutes of Health.

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